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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/526,955      | 06/06/2005  | Aurelie Falcou       | 09931-00037-US      | 7997             |

23416 7590 03/30/2007  
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WILMINGTON, DE 19899

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| EXAMINER |
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DAVIS, BRIAN J

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1621

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/30/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/526,955 | <b>Applicant(s)</b><br>FALCOU ET AL. |  |
|                              | <b>Examiner</b><br>Brian J. Davis    | <b>Art Unit</b><br>1621              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/7/05; 4/18/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: the Table 1 on page 5 of the specification lists WO 96/39455 as two separate documents (documents 2 and 4). This appears to be a typographical error. Appropriate correction is required.

The examiner respectfully requests applicant's assistance in correcting any other minor errors which may be present in the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Journal and *Proceedings of the Royal Society of New South Wales* (1920), 54, p.37-39 (CAPLUS abstract).

Applicant claims a polyarylene of a particular purity and produced by the method of claim 1.

*Proceedings of the Royal Society of New South Wales* (1920), 54, p.37-39 teaches applicant's compound: RN=605-39-0.

Firstly, the claim is a product-by-process claim and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ

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964, 966 (Fed. Cir. 1985) MPEP 2112.02. The compound is obvious in view of the case law.

Secondly, there are a number of decisions holding that where the purification of an old product results in a mere change in degree in its properties, the purified form is unpatentable. *Ex parte Windhaus*, 15 USPQ 45 (POBA 1931); *In re Ridgeway*, 76 F.2d 602, 25 USPQ 202 (CCPA 1935); *In re Mertz*, 97 F.2d 599, 38 USPQ 143 (CCPA 1938); *In re Macallum*, 102 F.2d 614, 41 USPQ 146 (CCPA 1939); *In re King*, 107 F.2d 614, 43 USPQ 400 (CCPA 1939); *Ex parte Sparhawk*, 64 USPQ 339 (POBA 1945); *In re Weijlard*, 154 F.2d 133, 69 USPQ 86 (CCPA 1946); *In re Johnson*, 94 F.2d 978, 37 USPQ 75 (CCPA 1938); *Ex parte Cavillito*, 89 USPQ 449 (POBA 1950); *Ex parte Snell*, 86 USPQ 496 (POBA 1950); *In re Fisher*, 307 F.2d 948, 135 USPQ 22 (CCPA 1962); *Ex parte Hartop*, 139 USPQ 525 (POBA 1962); *Ex parte Siddiqui*, 156 USPQ 426 (POBA 1966); *Ex parte Schmidt-Kastner*, 153 USPQ 473 (POBA 1963). Again, the compound is obvious in view of the case law.

### ***Allowable Subject Matter***

Claims 1-17, 19 and 20 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

The key to the instant invention is the ligand system on the Ni catalyst. The closest representative prior art appears to be WO 90/06295, cited by applicant in the IDS, which teaches a method for the preparation of biaryl compounds from the corresponding aryl halides in the presence of Ni(0) having a bidentate phosphorous-

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containing ligand and a reducing metal in an aprotic solvent (abstract; page 3, line 15).

The cited prior art neither teaches nor suggests the instant process. Nor would it have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of the prior art in order to arrive at those of the instant invention. There is no motivation to do so.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: *Tetrahedron* (2001), 57(3), p. 531-536 (CAPLUS abstract) is cited to show a related process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Davis whose telephone number is 571-272-0638. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 **BRIAN DAVIS  
PRIMARY EXAMINER**

Brian J. Davis  
March 28, 2007